

Chapter 2 AIDS in Massachusetts: An Overview

- For the most recent three years of data available (1994-1996), HIV related deaths have continued to decline for all races.
- After reaching a peak in 1993 (N=1,723), annually diagnosed AIDS cases fell to 507 cases in 1997.
- Cases among men are dropping faster than those among women.
- The AIDS epidemic has become multiple epidemics with differing risk behaviors each affecting different populations.
- Regional differences exist in the epidemic.

As of July 1, 1998, 4,893 persons were known to be living with AIDS in Massachusetts. Massachusetts' cases represent 2.1% of the national caseload. Nationally, Boston ranks 12th in total cases among standard metropolitan statistical areas (SMSAs). While the majority of cumulative and incident cases in Massachusetts are among injection drug users and men who have sex with men, recent trends in Massachusetts and elsewhere in the United States show an increasing number of heterosexually transmitted AIDS cases. This has been accompanied by an increasing number of AIDS cases among women and people of color.

Figure 2.1 compares those alive with AIDS in Massachusetts to cumulative AIDS cases. The epidemic today is affecting more women and people of color. In addition the epidemic is less dominated by any one mode of transmission.

Figure 2.1 Cumulative and Alive Massachusetts AIDS Cases by Age Category, Sex, Race/Ethnicity, and Transmission Mode

	Cumulative AIDS Cases (As of 7/1/98) N=13,342	Alive AIDS Cases (Alive as of 7/1/98) N=4893
Age Category		
0-12	195 (1%)	78 (2%)
13-24	456 (3%)	194 (4%)
25-44	10,586 (79%)	3,917 (80%)
45+	2,105 (16%)	703 (14%)
Sex		
Male	10,819 (81%)	3,724 (76%)
Female	2,523 (19%)	1,169 (24%)
Race/Ethnicity		
White	7,746 (58%)	2,408 (49%)
Black	3,080 (23%)	1,255 (26%)
Hispanic	2,415 (18%)	1,184 (24%)
Other	101 (1%)	46 (1%)
Transmission Mode		
MSM	5,409 (41%)	1,531 (31%)
IDU	4,523 (34%)	1,881 (38%)
MSM/IDU	510 (4%)	152 (3%)
HTSX	1,189 (9%)	596 (12%)
Presumed HTSX	872 (6%)	421 (9%)
Other	839 (6%)	312 (6%)

Persons alive with AIDS in Massachusetts are more likely to be female, members of communities of color, injection drug users, and have heterosexual or presumed heterosexual risk than the cumulative cases reported to the AIDS Surveillance program (significant at $p < 0.01$ level).

Figure 2.2 presents Massachusetts 1990 decennial census data. While more than 85% of the population in Massachusetts is White, rapid recent growth occurred among populations of color between 1980 and 1990; the Black population increased by 35%, the Hispanic population by 104%, and the Asian population has shown the most growth, increasing by 190%. Indications are that these trends continued through the 1990s and that this will be reflected in the next census.

Figure 2.2 Total Population in Massachusetts by Race/Ethnicity and Gender, 1990						
Race/Ethnicity*	Male		Female		Total	
	N	%	N	%	N	%
Black	134,487	4.7%	144,669	4.6%	279,156	4.6%
Hispanic	142,461	4.9%	145,100	4.6%	287,561	4.8%
White	2,536,508	87.8%	2,761,474	88.3%	5,297,982	88.1%
Asian/Pacific Islander	70,082	2.4%	70,974	2.3%	141,056	2.3%
Native American	5,190	0.2%	5,480	0.2%	10,670	0.2%
Total	2,888,728	100.0%	3,127,697	100.0%	6,016,425	100.0%

*Persons of Hispanic ethnicity are also included in the Black and White categories; therefore the counts are not unduplicated.

The impact of the AIDS epidemic has been particularly severe among communities of color. In 1996, AIDS was the leading cause of death for Hispanics and the third leading cause of death among Blacks. Figure 2.3 shows that despite the encouraging decrease in all populations, death rates from AIDS among Blacks and Hispanics remain substantially higher than among Whites.

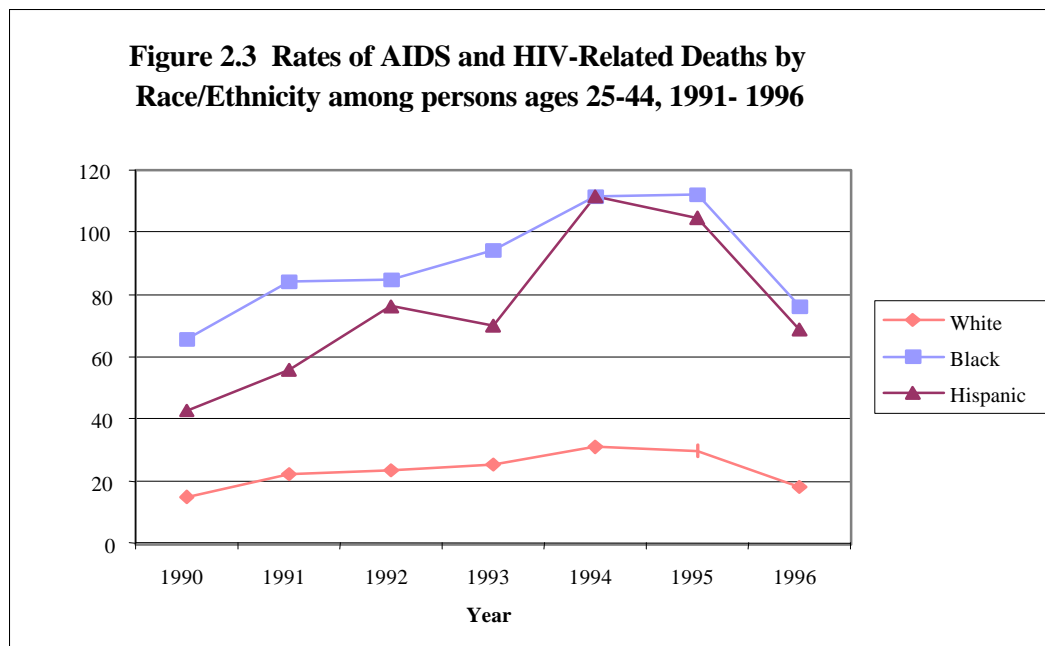
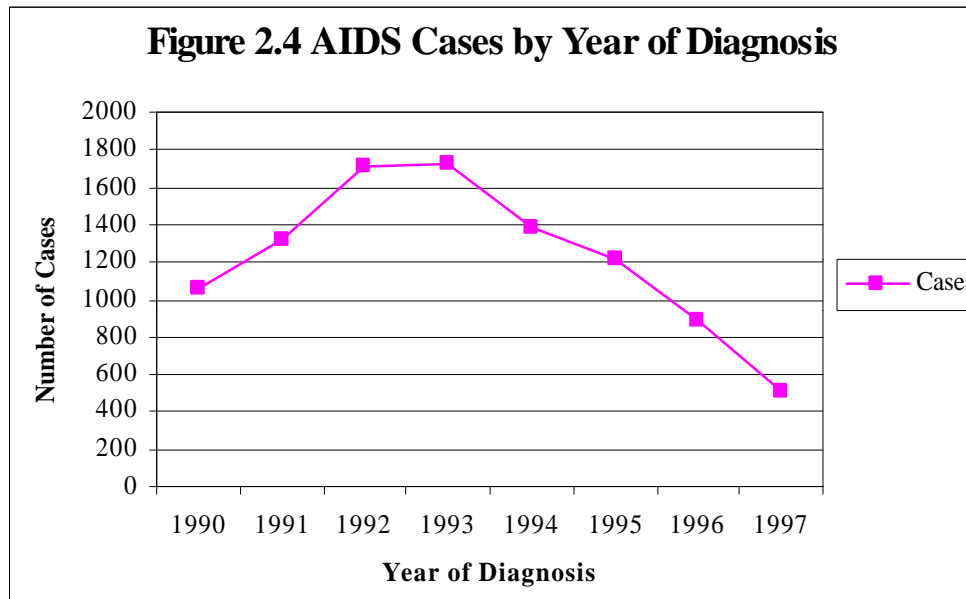
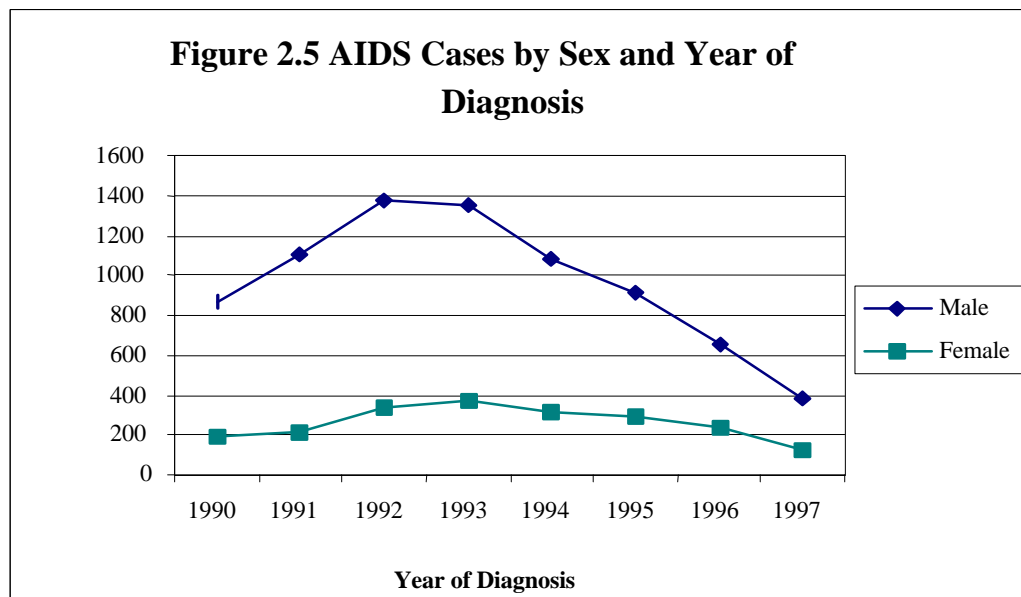


Figure 2.4 shows the dramatic and continuing drop in diagnosed AIDS cases since 1993. Advances in the treatment of HIV and sustained prevention efforts most likely play a role in this decline. However, AIDS case surveillance measures only a portion of the spectrum of HIV disease.



While there has been a decrease in the number of cases diagnosed among men and women the decrease is more apparent among men due to the greater number of cases diagnosed. In relative terms, the percentage of female cases among total cases has increased. This trend can be partly explained by the significant decrease in new MSM cases (N=474, 1990; N= 133, 1997).



All racial and ethnic groups have seen a drop in total cases diagnosed by year. However, Blacks and Hispanics still account for a far greater number than would be expected given their smaller share of the population. Blacks and Hispanics, who combined accounted for less than 10% of the 1990 population, account for 50% of alive AIDS cases.

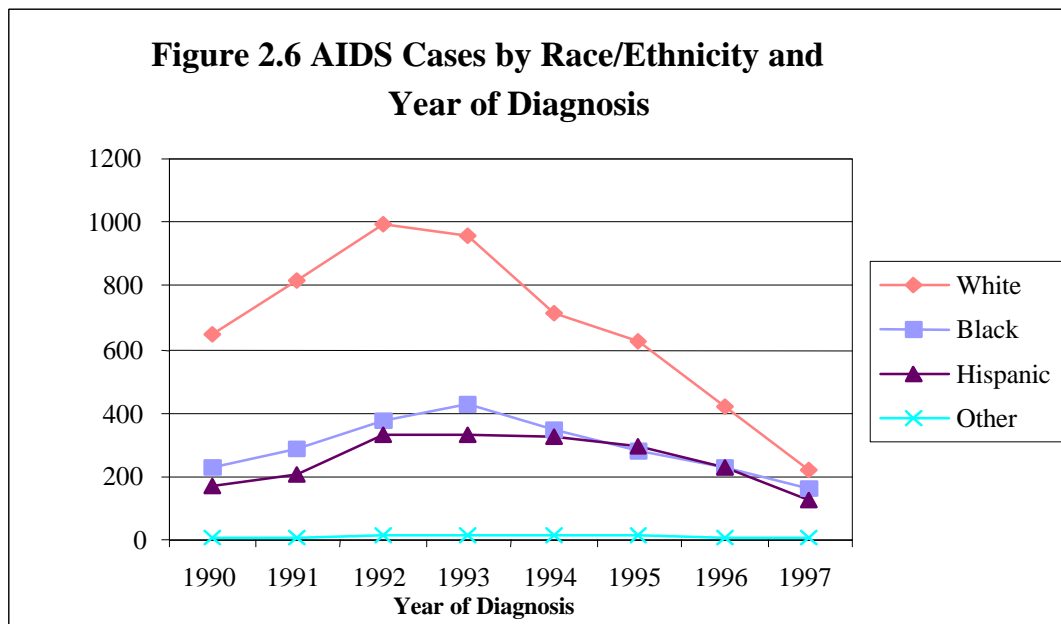
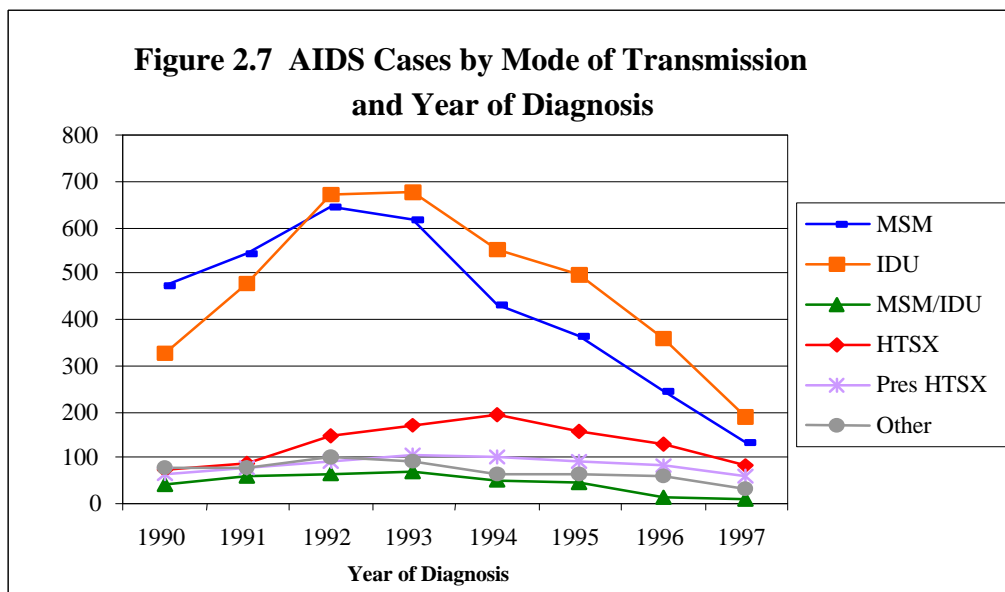
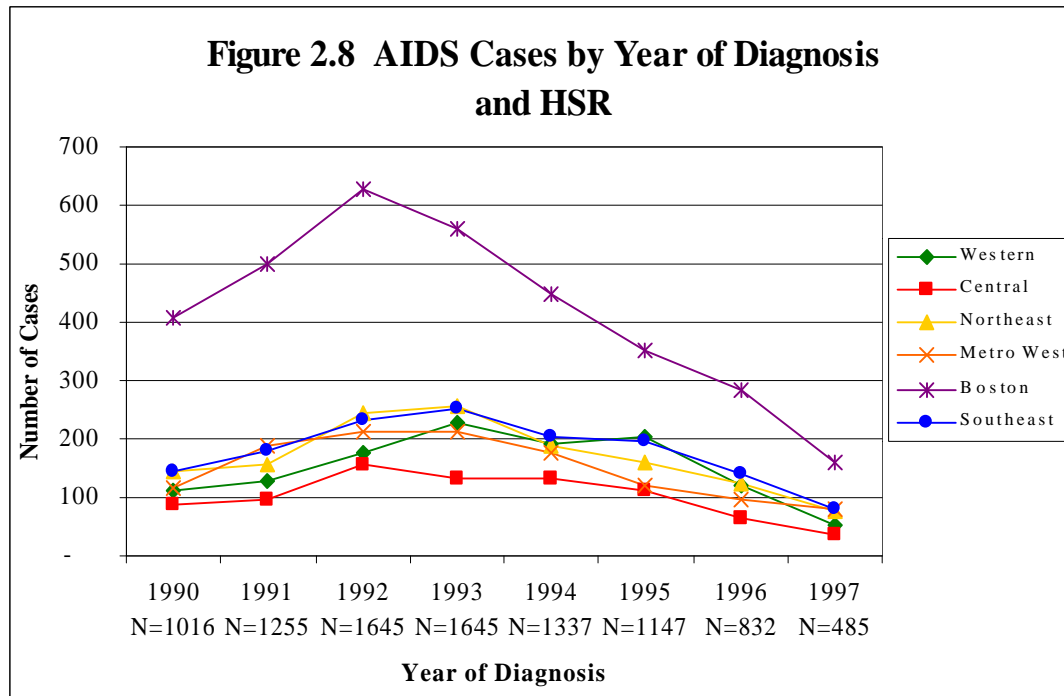


Figure 2.7 illustrates AIDS cases, over time, by mode of transmission. The proportion of cases attributable to heterosexual transmission (HTSX and Pres. HTSX) has risen from 13% in 1990 to 28% in 1997. While the absolute number of cases has declined to 189 in 1997, the proportion of cases attributable to injection drug use has remained steady with about 40% of all cases diagnosed since 1993. In 1992, for the first time in the epidemic, the number of injecting drug use cases exceeded that of men having sex with men cases and has continued to do so since.



After reaching a peak in 1992 (N=627), the Boston region has seen a steady decline in AIDS cases to 160 in 1997. While the Western, Central, Northeast, Metro West, and Southeast regions have also seen declines in AIDS cases since 1990, these declines have been more gradual.



The AIDS epidemic in Massachusetts is not uniform. There are different characteristics of cases in the various regions of the state. For example, in some regions injection drug use accounts for the single greatest number of cases. In these regions, (Northeast, Central, Southeast, and Western), AIDS cases are more likely to be among women and people of color and be more recent than other regions of the state. Other areas, particularly Boston, Metro Boston and the Southeast, continue to have a larger proportion of cases among men having sex with men. However, even within some of these regions, differences exist. For example, in the Outer Cape a predominantly men having sex with men epidemic still exists, while in the Mid-Cape, the epidemic more closely resembles that of the Southeast region as a whole. Figures 2.9 through 2.12 provide a regional summary of alive AIDS cases. Additional regional summaries will be given in each chapter of this profile.

Figure 2.9 Massachusetts Cumulative and Alive AIDS Cases by HSR

HSR	Cumulative AIDS Cases		Alive AIDS Cases	
	N	%	N	%
Western	1,498	12%	572	12%
Central	1,025	8%	387	8%
Northeast	1,747	14%	656	14%
Metro West	1,697	13%	591	13%
Boston	4,975	39%	1,732	38%
Southeast	1,871	15%	673	15%
Total	12,813	100%	4,611	100%

Figure 2.10 shows that while the proportion of female cases has increased overall in recent years, the West and Central regions continue to show the greatest percentage of female cases. This pattern is largely explained by the lower number of men having sex with men cases in these regions.

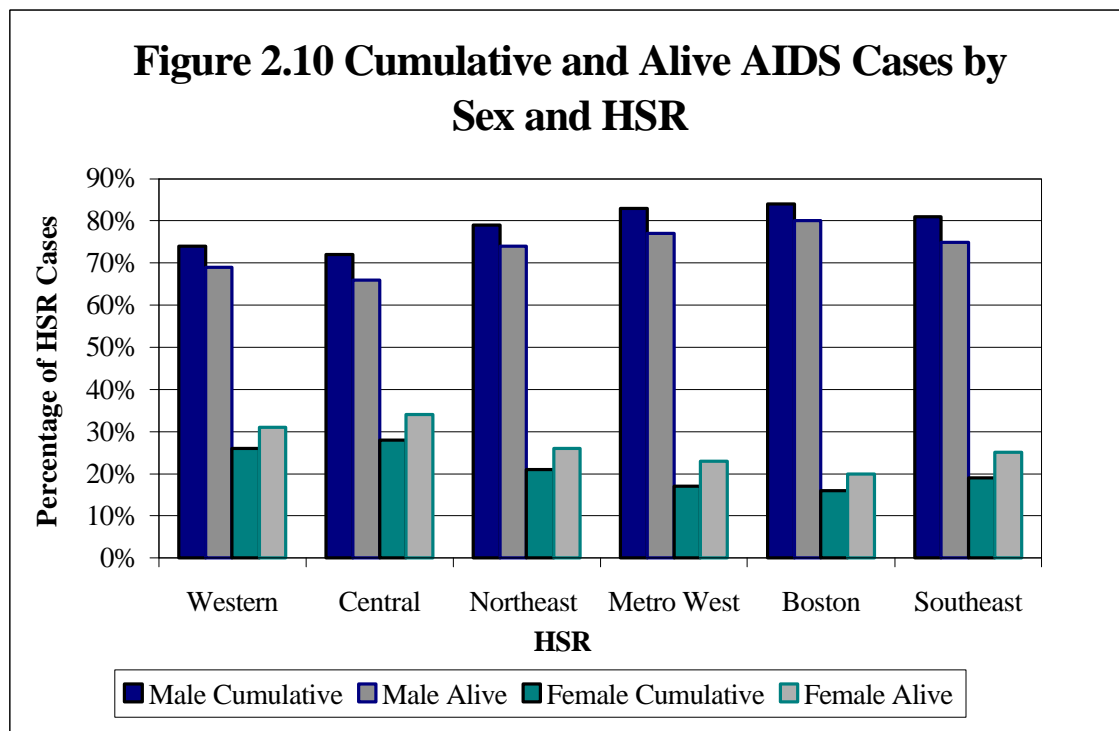


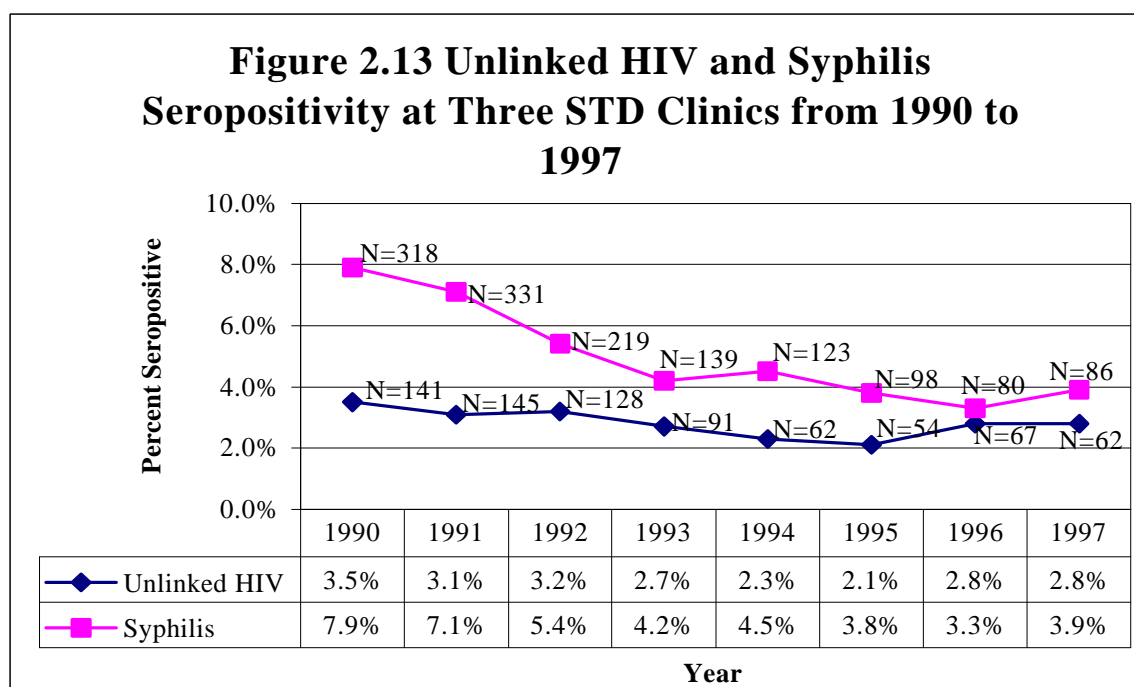
Figure 2.11 shows that all regions have experienced increases in the proportion of AIDS cases among people of color, as indicated by their relative representation in the alive cases.

Figure 2.11 Cumulative and Alive AIDS Cases by HSR and Race/Ethnicity								
HSR	White		Black		Hispanic		Other	
	N	(%)	N	(%)	N	(%)	N	(%)
Western								
Cum.	601	40%	322	22%	572	38%	3	0%
Alive	187	33%	109	19%	276	48%	0	0%
Central								
Cum.	572	56%	121	12%	327	32%	5	1%
Alive	197	51%	46	12%	141	36%	3	1%
Northeast								
Cum.	1169	67%	178	10%	387	22%	13	1%
Alive	380	58%	76	12%	193	29%	7	1%
Metro West								
Cum.	1235	73%	314	19%	130	8%	18	1%
Alive	379	64%	144	24%	59	10%	9	2%
Boston								
Cum.	2635	53%	1724	35%	572	12%	44	1%
Alive	719	42%	699	40%	293	17%	21	1%
Southeast								
Cum.	1368	73%	279	15%	207	11%	17	1%
Alive	456	68%	114	17%	97	14%	6	1%
Total								
Cum.	7580	59%	2938	23%	2195	17%	100	1%
Alive	2318	50%	1188	26%	1059	23%	46	1%

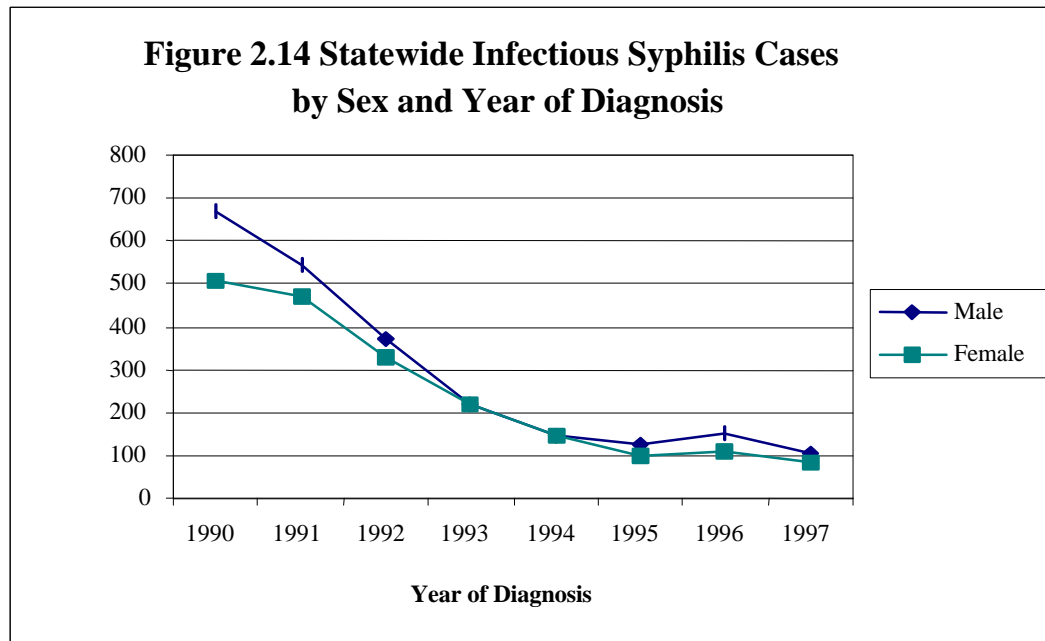
The relative increase in proportion of cases among people of color is largely a function of the reduction of cases attributed to men having sex with men; historically the majority of men having sex with men cases have been reported among Whites. Figure 2.12 shows a reduction in men having sex with men cases and a simultaneous rise in injecting drug use and heterosexual cases in all regions of the state.

Figure 2.12 Cumulative and Alive AIDS Cases by HSR and Mode of Transmission												
	MSM		IDU		MSM/ IDU		HTSX		Pres. HTSX		Other	
HSR	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
Western												
Cum.	379	25%	717	48%	57	4%	201	13%	63	4%	81	5%
Alive	105	18%	292	51%	17	3%	98	17%	30	5%	30	5%
Central												
Cum.	250	24%	484	47%	43	4%	141	14%	43	4%	64	6%
Alive	69	18%	187	48%	12	3%	72	18%	25	6%	22	6%
Northeast												
Cum.	603	35%	619	35%	81	5%	187	11%	113	6%	144	8%
Alive	176	27%	258	39%	23	4%	95	14%	64	10%	40	6%
Metro West												
Cum.	868	51%	322	19%	53	3%	134	8%	170	10%	150	9%
Alive	248	42%	144	24%	10	2%	54	9%	78	13%	57	10%
Boston												
Cum.	2538	51%	1252	25%	185	4%	366	7%	374	8%	260	5%
Alive	695	40%	498	29%	61	4%	193	11%	175	10%	110	6%
Southeast												
Cum.	767	41%	659	35%	72	4%	148	8%	94	5%	131	7%
Alive	234	35%	260	39%	18	3%	76	11%	39	6%	46	7%
Total												
Cum.	5405	42%	4053	32%	491	4%	1177	9%	857	7%	830	6%
Alive	1527	33%	1639	36%	141	3%	588	13%	411	9%	305	7%

Seroprevalence data from STD clinics are important sources of information for monitoring HIV and STD infection because clients attending these clinics report engaging in specific risk behaviors. Figure 2.13 depicts unlinked HIV and syphilis seropositivity for clients testing at three STD clinics (combined) in separate regions of the state that continuously participated in the survey since 1990. Unlinked HIV seropositivity rates have leveled off to 2.8% (N=62/2214) while those for syphilis have increased slightly in 1997 (N=86/2214), after several years of decline. Over the course of the survey, HIV seropositivity has been higher among male than female STD clients. HIV seroprevalence tends to increase with age groups. Blacks and Hispanics have higher rates of infection than Whites. Though HIV seroprevalence is highest with an HIV positive partner, MSM, or IDU, the majority of HIV infected clients report having multiple heterosexual partners as their major risk for HIV infection



Over the years just prior to 1997, statewide trends showed significant decreases in the incidence rates of STDs, particularly infectious syphilis, gonorrhea, and chlamydia. In 1997, this trend changed. Two thousand seventy-seven cases of gonorrhea, 7,330 cases of chlamydia, and 681 cases of syphilis were reported, compared to the 2,063 cases of gonorrhea, 6,791 cases of chlamydia, and 633 cases of syphilis reported in 1996. There are disproportionate risks experienced by people of color and youth. Age breakdowns also highlight subpopulations with differential risk. For example women in the 10-24 year old age category accounted for 60% of chlamydia cases in 1997 (4378/7330). Beyond the health risks posed by STDs themselves, considerable evidence has accumulated to document the increased HIV risk experienced by people with STDs.



Seroprevalence data (as shown in Figure 2.15) underscore the trends seen among alive AIDS cases. Women represent 38% of all 1997 HIV seropositives among STD clinic patients, an even higher percentage than among 1997 diagnosed AIDS cases (24%). This may be confounded by higher risk women seeking care in STD clinics as opposed to other sorts of health care.

Figure 2.15 Total Tested and HIV Seropositivity by Gender, Race and Age at Publicly Funded Counseling & Testing Sites for 1995-1997							
		1995		1996		1997	
		N	% +	N	% +	N	% +
Sex	Male	14,798	2.8%	16,158	2.7%	14,264	2.2%
	Female	15,773	1.3%	17,817	1.0%	16,033	1.2%
Race	White	19,127	1.2%	20,014	1.2%	17,640	0.8%
	Black	3,144	4.0%	3,747	3.3%	3,220	3.7%
	Hispanic	5,415	3.0%	6,680	2.9%	6,412	2.7%
	Other*	3,248	3.3%	3,861	2.7%	3,305	2.3%
Age	<13	140	0	142	.7%	356	1.1%
	13-24	9,228	.6%	10,998	.4%	10,046	0.6%
	25-44	18,473	2.7%	19,834	2.6%	16,911	2.2%
	45+	2,728	2.4%	3,031	2.6%	2,830	2.6%

*Includes unknown